

Amendment to the Drawing

The attached Replacement Drawing sheet includes changes to figures 1, 2 and 3 wherein the line thicknesses are uniform and wherein referral numbers are not shared between figures. Figure 2 has been moved to the center of the page in order to centralize the three Figures. Furthermore, in Figure 2, the relative size of the bristles is modified accordingly described by claim 6; and on Figure 3, the corresponding opening 15 is properly identified, as discussed in page 14, line 10 of the specifications, see also, Figure 1 and Figure 2. Proper connection between main cylinder 3 and tube 17 are clearly shown in figures 1 and 3, see claim 6 and Figure 2 for support.

The said changes are presented in the Replacement Sheet while the changes are properly illustrated in the Annotated Sheet. No new matter has been included in the said changes. Hence, Applicant respectfully requests that the objections to the drawings on page 2 of the Office Action be withdrawn.

Remarks/Arguments

In response to the Office Action mailed on March 9, 2006 Applicant response through his attorney presenting the following Arguments and Remarks.

I Status of the Application

Prior to the entry of this Amendment, claims 1-5 were canceled and claims 6-12 were pending in this application.

II Objections and Rejections in the Office Action

- Claims 7-10 have been objected because of their dependency on canceled claims and;
- Claim 9 has been rejected under 35 USC section 112, second paragraph and;
- Claims 6 to 8 have been rejected under 35 USC 103, found allegedly obvious over **Klupt** in view of **Pensky** and **Raymond**;
- Claim 9 has been rejected under 35 USC 103 found allegedly obvious over **Klupt** in view of **Pensky** and **Raymond** as applied to claim 8 and in further view of **Owens**;
- Claim 10 has been rejected under 35 USC 103, found allegedly obvious over **Klupt** in view of **Pensky** and **Raymond** as applied to claim 6 and in further view of **Rauch**.

The Office Action however is silent regarding examination of claims 11 and 12. On the other hand, the cited references have been identified only by its name. For prosecution purposes, it is presumed that they are Klupt, US patent 5,301,381; Pensky, US patent 2,835,912; Raymond, US patent 4,519,109; Owens, US patent 6,331,088; Rauch, US patent 5,306,151 and Gardiner US patent Application Published Application

2003/0088932. The said references have been listed in the Notice of Reference Cited by the Examiner, PTO-982, which is part of the record. For the record, the Examiner is respectfully requested to confirm the identification of the said references.

III The present Amendment

Claims 6-12 are currently amended and remains under examination. Independent claim 6 has been amended to include the limitation "*containing a disposable desensitizing agent cartridge*". Support for the said limitation can be found on page 13, line 22 of the specification. Claims 7 through 12 have been amended only to the extent to correct the proper dependency. Applicant submits that the present amendment to the claims does not include new matter.

IV Response to Claims Objections

Claims 7 to 10 have been objected because the said claims depend on canceled claims 1, 2, 3. Claims 7 to 10 have been amended in the instant Paper in order to overcome the said objection. None of the claims, as presented in the instant paper depend on canceled claims 1-5. Examiner clarification of improper dependency on page 3, first paragraph is appreciated. The presumption that claims 7 and 10 should depend on claim 6; that claim 8 depend on claim 7; and that claim 9 depend on claim 8 is herein confirmed as reflected in the new listing of claims wherein the proper dependency is shown. Thus, Applicant respectfully requests that the objections to claims 7-10 be withdrawn.

V Claim Rejection under 35 USC section 112, second paragraph.

Claim 9 has been rejected under 35 USC 112, second paragraph as being indefinite because of the inclusion of the phrase "said cartridge". A limitation in

reference to a disposable desensitizing agent cartridge has been included in the only independent claim 6. Limitations of claim 6, as currently amended herein, are incorporated in claim 9 since the said claim depends indirectly on claim 6. Therefore, it is believed that the said rejection has been overcome and it is respectfully requested that the said rejection to claim 9 be withdrawn.

VI Rejection under 35 USC section 103(a)

A. Rejection of Claims 6-8

Claims 6 to 8 stand rejected under 35 USC 103 (a) as allegedly obvious over **Klupt**, US patent 5, 301, 381 (1994) in view of **Pensky**, US patent 2,835,912 (1958) and **Raymond**, US patent 4,519,109 (1985) see pages 3 and 4 of the Office Action.

Applicant respectfully traverses the rejection and submits that the rejection fails to establish a prima facie case of obviousness because the rejection does not comply with the proper procedural analysis required in *Graham v. Deere*, 383 USW 1, 148 USPQ 459 (1966). Examiner's attention is respectfully directed to the legal considerations in the obviousness determination. See MPEP, chapter 21, section 2141 and MPEP chapter 7, section 706.02(j). Whenever a rejection under 35 USC 103 is imposed, it is legally mandatory that the Office applies an objective analysis using as a guide the obviousness determination of Graham factual inquiries.

The said required Graham factors are:

- a) Determining the scope and contents of the prior art;
- b) Ascertaining the differences between the prior art and the claims in issue
- c) Resolving the level of ordinary skill in the pertinent art and;
- d) Evaluating evidence of secondary considerations.

Additionally, the obviousness analysis must include the followings tenets of patent law:

- 1) The claimed invention must be considered as a whole-thus the Office should consider the entire content of the invention;
- 2) The reference or references must be considered as a whole
- 3) The reference or references must disclose(s) ALL limitations of the claims and must suggest the desirability and the motivational reason to combine the said references in order to create the claimed invention.
- 4) The reference(s) must be viewed without the benefit of impermissible hindsight vision afforded by the claimed invention and;
- 5) There should be a reasonable expectation of success –combining the references is expected to produce the same claimed invention successfully-, which is the standard with which obviousness is determined.

Moreover, in determining the propriety of the case of obviousness, it is necessary to ascertain whether or not the reference teachings would appear to be sufficient for one of ordinary skill in the art having the reference before him to make the proposed substitution, combination or other modification, *In re Linter* 173 USPQ 560 (1972). If the Examiner based his or her rationale upon Official Notice unsupported by any documentary evidence, -based on his or her own knowledge or experience-, the Examiner must provide specific factual finding predicated on sound technical and scientific reasoning to support his or her conclusion of common knowledge, see *Soli*, 37 USPQ 801 and *Chevenard* 60 USPQ 241.

Applicant's instant Remarks and Arguments demonstrates that the rejections under 35 USC 103 (a) found in the Office Action lack to comply with the mandatory Graham v.

Deere Co., supra, proper analysis and therefore, it cannot sustain a prima facie case of obviousness and that the cited references fail to teach, disclose or suggest Applicant's claimed invention.

The claimed invention is directed to a toothbrush for the prevention and treatment of tooth sensitivity and to the method of using the said toothbrush. Therefore, the novelty of the invention relies on Applicant toothbrush, which comprises the following minimal characteristics:

- 1) a main cylinder having a tube attached to one of the extremes of the said cylinder;
- 2) a head attached to the extreme of the said tube and located substantially in at the opposite side wherein the cylinder is attached to the said tube;
- 3) a manual color-code lever having a first colored side and a second colored side attached to the said tube and;
- 4) at least two bristle groups, one in the upper side of the said head and other in the lower side of the said head; wherein the upper bristle group has first inner bristles and first outer bristle and wherein the lower bristle group has a second inner bristles and second outer bristles; wherein the said upper bristles are shorter in length than the said lower bristles and; wherein said first outer bristles are shorter in length than the said first inner bristles and; wherein said second outer bristles are shorter in length than said second inner bristles and wherein said main cylinder comprises a desensitizing agent outlet containing a disposable desensitizing agent cartridge.

A given reference or group of references **anticipating or suggesting** the claimed invention must **at the very least**, disclose(s) all of the above limitations to anticipate or suggests limitations found in claim 6, which is the only independent claim in the instant Application.

Claims 6 to 8 stand rejected under 35 USC 103 (a) as allegedly obvious over **Klupt**, US patent 5, 301, 381 (1994) in view of **Pensky**, US patent 2,835,912 (1958) and **Raymond**, US patent 4,519,109 (1985) see pages 3 and 4 of the Office Action.

Regarding Klupt's reference, on page 4, first paragraph, the Office alleged that the said reference discloses:

- 1) A main body which is cylindrical; a tube attached to one extreme of the main body (*identified by the Office by the proximate reference 12 in fig 2*) and a head attached to the extreme of the tube opposite the main body. The Office cited figures 1-3 of the cited reference to support its alleged description of Klupt's toothbrush.
- 2) A lower bristle group, an upper bristle group, both group having shorter outer than inner bristles. The office cited Figure 5 to support its alleged description of the bristle groups.
- 3) A desensitizing agent outlet, allegedly outlet of the drive mechanism 38.

The Office clearly admitted that Klupt does not disclose:

“a manual color-coded lever attached to the tube or that the bristles in the upper bristle group are shorter than the bristles in the lower bristle group”, see page 4 , lines 7-9 of the Office Action.

Intending to satisfy the allegedly lack of proper disclosure of all the limitations present in Klupt's reference, the Office cited Pensky, US patent 2835912 (1958) alleging that Pensky's toothbrush:

- 1) is presumably similar to Klupt's toothbrush;

- 2) discloses a toothbrush having bristles in the upper bristle group shorter than the bristles in the lower bristle group, citing Pensky's Fig. 4 and;
- 3) discloses a toothbrush having levers for improved gripping, citing levers 22 and 23 on Pensky's toothbrush.

The Office immediately concludes that "it would have been obvious to employ levers on the main cylinder of the Klupt toothbrush in view of Pensky for improved gripping and to modify the Klupt toothbrush to have bristles in the upper bristles group shorter than bristles in the lower bristles group in view of Pensky for improved tooth cleaning".

The Office also alleged that the cited Raymond's reference also discloses a similar toothbrush including a color-coded grip to help user properly brush, and followed by the conclusion that "it would have been obvious to color-coded the levers of the modified Klupt device in view of Raymond to help the user properly brush".

The rejection of claims 7 is dispatched by a mere mentioning that, presumably, the Raymond reference discloses a tube comprising a "drive shaft". Similarly, the rejection of claim 8 is based simply on the phrase "regarding claim 8, see col. 1, lines 6-10."

Applicant respectfully submits that Klupt's toothbrush however does not have a tube connecting a head and main body units, since as described on Klupt's column 3, lines 19-21, the said toothbrush **"includes a handle member defining an internal handle chamber. The handle member extends in a longitudinal extended head member defining a head housing having bristles extending therethrough"**

Thus, Klupt's toothbrush has two main parts, a main body or handle that has a bottle-like main body couple to the second part: a bristle-containing head. The said main parts are clearly illustrated in figures 1 and 2. What the office has identified as a tube, the

proximate referral 12 in Fig 2, is clearly named and identified by the reference as the head of Klupt's toothbrush, see Klupt's column 4, lines 54 to 65, wherein while discussing figures 1, 2 and 4 it is said:

“Head member 12, also extends in longitudinal direction 18 and defines head housing 24 and includes sets of bristles 20 extending in longitudinal direction more clearly seen in FIGS 2, 4 and 5. **Head member 12** and associated housing 24 may be integrally molded or may be released secured to handle member 24 through an standard keyway interface not important to the invention concept as herein described *with the exception that head housing 24 be removable from handle member 14.*”

The fact that the cited reference teaches away from the Examiner's own conclusions is evidence that the reference was not considered as a whole, and that the invention has been rejected based upon impermissible hindsight. Moreover, the claimed invention has been rejected after being dissected in multiple limitations, reducing the Examination process to a process of looking for references that allegedly contain here and there some of the limitations present in the claimed invention and not considering the claimed invention as a whole.

Evidently, Klupt's reference fails to disclose ALL the limitations present in the claimed invention: Klupt does not disclose a toothbrush having a tube between the main cylinder and the bristle containing head. On the other hand, regarding the bristle described by Klupt on Figure 5, they are illustrated as identical linear series of bristles groups, couple in sets of two connecting units 90 and 92. The said bristle-groups are shown as a lineal pattern parallel to each other and being all of them identical to each other. Applicant respectfully submits that the Klupt's toothbrush fails to teach, disclose or suggest a toothbrush having the group of bristles described in Applicant's toothbrush:

at least two bristle groups, one in the upper side of the said head and other in the lower side of the said head; wherein the upper bristle group has first inner bristles and first outer

bristle and wherein the lower bristle group has a second inner bristles and second outer bristles and wherein the said upper bristles are shorter in length than the said lower bristles and; wherein said first outer bristles are shorter in length than the said first inner bristles and; wherein said second outer bristles are shorter in length than said second inner bristles. Thus, once again the cited reference does not disclose ALL the limitations of the claimed invention.

Regarding the Pensky's reference, it is clear that the cited figure 4, discloses a toothbrush head having a group of bristles in a **larger-shorter-larger** pattern or order design. Thus, the **upper** and **lower** bristle groups disclosed by Pensky have the SAME or identical length. Pensky in any way discloses teaches or suggest a toothbrush having the bristles recited in claim 6: at least two bristle groups, one in the upper side of the said head and other in the lower side of the said head; wherein the upper bristle group has first inner bristles and first outer bristle and wherein the lower bristle group has a second inner bristles and second outer bristles and wherein the said upper bristles are shorter in length than the said lower bristles and; wherein said first outer bristles are shorter in length than the said first inner bristles and; wherein said second outer bristles are shorter in length than said second inner bristles.

Similarly, the alleged "levers" presented by Pensky are described as "a rectangular cavity 22 formed in the wedge -shaped wings 2, said wings having a shape otherwise similar to that of Figs 1 to 4, see column 2, lines 69-71. In no place Pensky discloses a lever, as described by Applicant's toothbrush, requiring a manual color code lever having a first colored side and a second colored side attached to the described tube. Indeed, Pensky's toothbrush does not even require a tube section, let alone incorporate an additional element in a non-included part of a toothbrush.

Applicant respectfully submits that the rejection presented by the office does not comply with the Graham's mandatory procedure at all since the cited references, alone or in combination, do not disclose or shown ALL the limitations presented in claim 6, as required, see *In re Royka*, 180 USPQ 580 (CCPA 1974). Moreover, the rejection seems to be directed exclusively to illustrate some of the alleged limitations of the claimed invention here and there without considering the claimed invention and the references as a whole. The Examiner is respectfully reminded that distilling the invention down to the "gist" or "thrust" disregards the requirement of analyzing the subject matter "as a whole", see *W.L. Gore & Associates, Inc. v. Garlock, Inc.* 721F.2d 1540 (1983). It is observed that in many instances, the Examiner only relied upon mentioning figures from the cited reference, disregarding the disclosure presented in the specification containing the cited-figure in order to support his conclusions.

An even more serious deficiency of the presented rejections under 35 USC 103 is the lack of teaching or suggestion supported by the cited references in order to motivate the person having ordinary skills in the art, PHOSITA to combine the cited references and the lack of a reasonable expectation of success in the resulted invention after the said combination is performed; both of which shall be supported in the cited prior art, see MPEP chapter 21, section 2141.03 and MPEP, chapter 7, section 706.02(j).

The mere general conclusion that "It would have obvious to employ levers on the main cylinder of the Klupt toothbrush in view of Pensky for improved gripping, and to modify the Klupt toothbrush to have bristles in the upper bristle group shorter than bristles in the lower bristle group in view of Pensky for improved tooth cleaning" does not sustain the required motivation to combine the said references, since there is no indication in any of

the references indicating the need to modify one in view of the other. The said conclusion is orphan of a supportive rational based upon the cited references or any other documentary evidence; apparently, it is based on the Examiner's own knowledge or experience-since the Examiner does not provide specific factual finding predicated on sound technical and scientific reasoning to support his conclusion of common knowledge or Official Notice. If the conclusions presented by the Examiner are indeed based upon his common knowledge or Official Notice, Applicant respectfully request that the Examiner must provide an affidavit or declaration setting fourth his specific factual statements and explanation to support the findings according to 37 CFR 1.104 (d) (2) , see MPEP 2143.03(c). Particularly when, even in the sake of the argument that the cited references disclosed ALL the limitations of claim 6, there is no indication that there is a motivation to combine the said references in order to produce or make the invention as claimed.

For example, if it is obvious to a PHOSITA to combine the Klupt references with the teachings of Pensky, then Klupt, as person skilled in the art of designing and preparing toothbrushes, would have incorporated the limitations allegedly disclosed by Pensky and the Raymond in his toothbrush in **1994**, particularly when the said allegedly desirable characteristics disclosed by Pensky and Raymond references have been available to the PHOSITA like Klupt since **1958 and 1985**.

Respectfully the Examiner is also reminded that even in sake of the argument that the cited references discloses each one of the claims limitations, that does not render the resultant combination obvious, without the proper motivation to combine the said references, see In re Mills 16 USPQ 2d 1430 (1990): the examiner **MUST** present a

convincing line of reasoning as to why the artisan-having ordinary skills in the particular art-would have found the claimed invention to have been obvious in light of the teachings of the references and at the time that the invention was made.

Regarding the considerations given to claims 7 and 8, the Examiner is respectfully reminded that the prior art should be cited clearly, very specifically and in a very objective manner. Rejections of claims 7 and 8 are herein traverse because a rejection that only includes the indications such as the ones presented in the rejection of claims 7 and 8:

“Regarding claim 7, the tube further comprises drive shaft 76. Regarding claim 8, see col. 1 lines 6-10.”

are clearly improper since it is unclear what are the particular reference(s) applied in the rejections and the proper analysis supporting the obviousness of the invention. Indeed, it is impossible to determine which one of the cited references is applied to the rejection of claims 7 and 8. For instance, even presuming that the reference applied on rejections of claims 7 and 8 is the references mentioned previously to the said rejections: Raymond, US patent 4519109; a referral number 76 is not found in any one of the figures 1 through 9 of Raymond. The rejection of claim 7 is further traverse because the Raymond's reference does not mention in any way the limitation present in claim 7: a toothbrush of claim 6 further, comprising a driver shaft for rotating said lower and upper bristles. Similarly, regarding rejection of claim 8 and presuming that the reference applied in the said rejection is Raymond, supra, the information in the cited column 1, lines 6 to 10 in Raymond are unrelated to the limitation presented in claim 8, since the information in the said place of Raymond reference not even included a description of a toothbrush, -In column 1, lines 6 to 10 Raymond discloses that:-

“Hithertore varieties of tooth brushes for cleaning ones’ tooth casing have been devised for prtactical use and users have in reality used these brushes under the instructions of dental surgeons. However, the realities are that how many times they may have correctly practiced under the instructions they are not able to get rid of cavities in teeth which...”

On the other hand, claim 8 refers to the limitation of the desensitizing agent selected from the group consisting of potassium nitrate and/or fluoride salts. Therefore, rejection of claim 8 is further traverse since the rejection present a citation of the prior art that has nothing to do with the contents of the limitation claimed in claim 8.

Rejection of claims 7 and 8 continued to reflects that the Office had failed to properly consider the claimed invention as a whole and to provide at least references properly disclosing ALL the limitations of the claimed invention.

B) Rejection of Claim 9

Claim 9 depends on claim 8. Therefore claim 9 incorporate ALL the limitations of claims 8, 7 and independent claim 6.

Claim 9 has been rejected under 103 (a) as being unpatentable over Klupt, in view of Pensky and Raymond as applied to claim 8 above and further in view of Owens, presumable US patent 6,331,088.

It is unclear if the said rejection incorporates the rejections of claims 6 and 7, which incorporates all their limitations to claim 9.

Since claim 9 depends on previous claims 6-8 and it incorporates ALL the limitations of the said claims, previously rejected, the said rejection is herein traverse under the same grounds presented in the traversing of claims 6, 7 and 8 as discussed previously. Indeed, the said rejection is limited to recite a series of limitations found in Klupt’s figures without identify the particular figures and without considering Klupt’s

specifications. Similarly, the rejection called for a general disclosure of Owens reference in order to allegedly complete the limitations of the claim. Claim 9 rejection is further traverse because it concluded as previous rejections: without including a rationale to combine the references or identifying a motivation to combine the said references in order to produce the resultant claimed invention. If the said reasoning is based upon the Examiner common knowledge, Applicant respectfully request that the Examiner must provide an affidavit or declaration setting fourth his specific factual statements and explanation to support the findings according to 37 CFR 1.104 (d) (2), see MPEP 2143.03(c). Particularly based upon the quite different structure of Klupt toothbrush, see figure 1 and 2 of Klupt and the toothbrush disclosed by Owens, as illustrated in Figure 2. How the buttons of the Owens reference are incorporated in Klupt's toothbrush? What is the motivation to combine both inventions?

C) Rejection of Claim 10

Claim 10 had been rejected under 35 USC 103(a) as being allegedly unpatentable over **Klupt** in view of **Pensky** and **Raymond** as applied to claim 6 and in further view of **Rauch**, US patent 5,306,151, see page 5, third paragraph of the Office Action. *Nevertheless, the analysis following of the said rejection does not mention Rauch reference at all, since the new reference used in the said rejection is Gardiner, presumably US patent Application Published Application 2003/0088932.*

Claim 10 is directed to a method of using the toothbrush claimed in claim 6. Therefore, claim 10 incorporates ALL the limitations of claim 6. Applicant submits that the Gardiner section cited in the rejection: in col 6. lines 44-54 and col. 7, lines 18-23 discloses the type of bristles used in the Gardiner's toothbrush; the

said citations do not disclose *a method of using the claimed toothbrush as claimed in claim 6 and 10*. It is also submitted that the cited Gardiner Figure 16 is not found anywhere. Indeed Gardiner has only figures 1A, 1B, 2A-2D; 3A-3B; 4A-4C; 5-9A-9B. Therefore, rejection of claim 10 is traverse because the cited references do not disclose or suggest the claimed toothbrush or the method of using the same as described in claims 6 and 10. Remarks and arguments presented previously regarding rejection of claim 6, as discussed above are also opposed to the rejection of claim 10.

Thus, based upon the reasons expose above, Applicant traverse rejections of claims 6-10 under 35 USC 103(a). It is respectfully submitted that the said rejections do not comply with the mandatory and objective analysis of *Graham v Deere Co. supra*, as discussed above. Applicant further submits that the Office had failed to present a prima facie case of obviousness and that the cited references alone or in any combination do not fairly teach, disclose or suggest the invention as claimed herein. Therefore, Applicant respectfully request that the rejection of claims 6-10 under 35 USC 103 be withdrawn.

D) Claims 11 and 12 and Office Action Signatory Requirements

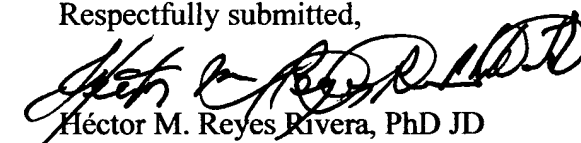
Claims 11 and 12 have not been rejected or declare allowable. The said claims apparently were not subjected to Examination. The Examiner is respectfully and kindly reminded that the said claims are active and in every action, each pending claim should be examined and threat piecemeal examination should be avoided, see MPEP, sections 707.07(g) and 707.07(i).

CONCLUSION

In view of the foregoing, Applicant believes all claims now pending in this Application are in condition for allowance. The issuance of a formal Notice of Allowance at an early date is respectfully requested.

If the Examiner believes that any points remain in issue, he is kindly requested to contact the undersigned at the telephone number (787) 467-5522 in order to expedite the prosecution of the instant Application.

Respectfully submitted,



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April 19, 2006

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Application No. 10/737145
 Amendment date April 19, 2006, 2005
 Reply to Office Action of March 9, 2006
 Annotated Sheet showing Changes

